

CLAIMS

What is claimed is:

1. A method for extracting or concentrating the polar constituents of plant material from the family Brassicaceae, comprising:
 - exposing said plant material to liquid;
 - evaporating the liquid to resolve the polar components as an extract.
2. The method of claim 1 further comprising,
 - increasing the surface area of the plant material through mechanical manipulation.
3. The method of claim 1 wherein,
 - the liquid is water in the form of steam, and the method further comprises, condensing the steam into a liquid.
4. The method of claim 3 wherein,
 - the liquid is water and alcohol or methanol
5. The method of claim 1 wherein,
 - the plant material is of the genus *Lepidium*.
6. The method in claim 1 wherein,

mechanical manipulation is selected from the group consisting of; chopping, grinding, pureeing and macerating and the material resulting takes the form selected from the group consisting of; pieces, granules, macerate, puree and powder.

7. The method in claim 3 wherein,

the plant material is exposed to said liquid through a porous structure for a period of between 15 minutes and eight hours

8. The method in claim 3 wherein,

the steam is condensed in a collector through temperature variation into a liquid.

9. The method in claim 1 wherein,

the liquid is depleted of its aqueous properties through a process selected from the group consisting of; evaporation, heating, vacuum drying, and lyophilization.

10. An extract of parent material of the genus *Lepidium* comprising concentrated polar components of the parent material and reduced lipid components, lignans and starches relative to the parent material.

11. A pharmacological dose unit that enhances the production of IGF comprising an extract of plant material from genus *Lepidium* with concentrated polar components.

12. The pharmacological dosage unit in claim 11 that increases IGF and negates compromises in fetal growth due to suppressed IGF levels.
13. The pharmacological dosage unit in claim 11 that stimulates gonadal production of IGF-1 and promotes indices of male and female fertility.
14. The pharmacological dosage unit in claim 11 that increases IGF and negates the degradation of cartilage, promotes tissue repair and improves joint mobility and function in the elderly or those suffering from osteoarthritis.
15. The pharmacological dosage unit in claim 11 that increases IGF and promotes muscle strength.
16. The pharmacological dosage unit in claim 11 that increases IGF and regulates blood glucose levels and is suitable for use in diabetes.
17. The pharmacological dosage unit in claim 11 that increases IGF and promotes the growth of ectotherms including fish, as well as pigs, poultry and other farmed animals when included in meal formulations.
18. The pharmacological dosage unit in claim 8 that increases IGF levels and promotes weight gain in cachexia.

19. The pharmacological dosage unit in claim 8 that increases IGF levels and promotes bone formation in the young, fracture healing, osteoporosis and the aged.
20. The pharmacological dosage unit in claim 8 that increases IGF levels and promotes muscle and joint repair after injury.